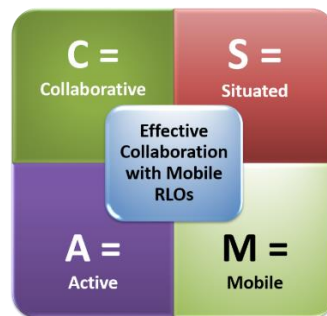




## Statement of Research Background & Interests

My recent research work has focused on the use of mobile technologies to facilitate collaborative learner interactions, as well as increasing teachers' perceptions of self-efficacy with the use of educational technologies. My interest in researching teacher confidence with educational technologies can be traced back to my work with Dr. Elizabeth Murphy at Memorial University of Newfoundland, where I served as a research assistant on the Telesat Multimedia Trials for Schools project. This work resulting in the publication of a co-authored paper with Dr. Murphy about the impacts of broadband connectivity in breaking down barriers to cross-curricular collaboration (Power & Murphy, 2004).

My mobile learning research pursuits began early in my doctoral studies with the development of the QR Cache research project at College of the North Atlantic-Qatar (Power, 2012a, 2012b). That project investigated the use of mobile devices and Quick Response codes to increase engagement amongst English Foreign Language students. That research was the starting point of my work with the pedagogical foundations of effective mobile reusable learning objects, and the development of the Collaborative Situated Active Mobile (CSAM) learning design framework.



The CSAM Learning Design Framework (Power, 2013, 2015; Power et al., 2014)

More recently, I have been investigating the prevalence of the CSAM pedagogical elements as instructional design drivers amongst examples of mobile RLO use (Power, 2013, 2015; Power, Cristol & Gimbert, 2014). I have also developed a survey instrument called the Mobile Teacher's Sense of Efficacy Scale (mTSES). I have been working with colleagues at the Ohio State University to investigating the utility of the CSAM framework as a foundation for teacher professional development related to the integration of mobile technologies in education. I have also been investigating the use of the mTSES as a tool for the planning and evaluation of teacher professional development in the area of mobile technologies. Overviews of these research initiatives and their findings have been presented at the 13<sup>th</sup> World Conference on Mobile and Contextual Learning (mLearn 2014) in Istanbul, Turkey (Power et al., 2014) and the 14<sup>th</sup> World Conference on Mobile and Contextual Learning (mLearn 2015) in Venice, Italy (Power, Cristol, Gimbert, Bartoletti & Kilgore, 2015a, 2015b).

My recent research has resulted in international and inter-institutional research and professional development collaborations – most recently a joint US National Science Foundation grant application with researchers from Ohio State University, as well as the design and delivery of a Massive Open Online Course called *Instructional Design for Mobile Learning* (approximately 2100 international participants). It is my hope to continue to pursue my research collaborations with an eye on expanding them to include Canadian institutions, and to tailoring the open-access professional development resources I have been developing to meet the needs Canadian provincial K12 and post-secondary audiences.



## References

- Power, R. (2012). QR Cache: Connecting mLearning practice with theory. In M. Specht, M. Sharples & J. Miltisilta (Eds.). *Proceedings of the 11th Annual World Conference on Mobile and Contextual Learning (mLearn 2012) held in Helsinki, Finland, 16-18 October 2012* (pp. 346-349). Available from <http://ceur-ws.org/Vol-955/doctoral/power.pdf>
- Power, R. (2012, October). QR Cache: Linking mLearning theory to practice in Qatar. *Qatar Foundation Annual Research Forum Proceedings, 2012*(CSP31). DOI: 10.5339/qfarf.2012.CSP31. Available from <http://www.qscience.com/doi/abs/10.5339/qfarf.2012.CSP31>
- Power, R. (2013). Collaborative situated active mobile (CSAM) learning strategies: A new perspective on effective mobile learning. *Learning and Teaching in Higher Education: Gulf Perspectives, 10*(2). Available from <http://lthe.zu.ac.ae/index.php/lthehome/article/view/137>
- Power, R. (2015). *A framework for promoting teacher self-efficacy with mobile reusable learning objects* (Doctoral dissertation, Athabasca University). Available from <http://hdl.handle.net/10791/63>
- Power, R., Cristol, D., Gimbert, B., Bartoletti, R., & Kilgore, W. (2016). Using the mTSES to evaluate and optimize mLearning professional development. *The International Review of Research in Open and Distributed Learning, 17*(4). Available from <http://www.irrodl.org/index.php/irrodl/article/view/2459>
- Power, R., Cristol, D., & Gimbert, B. (2014). Exploring tools to promote teacher efficacy with mLearning. In M. Kalz, Y. Bayyurt, & m. Specht (Eds), *Mobile as a mainstream - Towards future challenges in mobile learning: Communications in Computer and Information Science Volume 479*, pp. 61-68. Available from [http://link.springer.com/chapter/10.1007/978-3-319-13416-1\\_7](http://link.springer.com/chapter/10.1007/978-3-319-13416-1_7)
- Power, R., Cristol, D., Gimbert, B., Bartoletti, R., & Kilgore, W. (2015, October 23). *Assessing teacher self-efficacy in mLearning professional development*. Paper presentation at the 14th World Conference on Mobile and Contextual Learning (mLearn 2015), 17-24 October, 2015, Venice, Italy. Available from <https://youtu.be/JN4K8XevfM>
- Power, R. & Murphy, E. (2004). Broadband in teaching and learning in Newfoundland and Labrador. *The Morning Watch* (Winter 2004). Available from <http://www.mun.ca/educ/faculty/mwatch/win04/murphypower.htm>